

## ABSTRACT

A Li-ion secondary battery with double standard cells is disclosed in the invention, which is to install two standard Li-ion cells inside a casing that has the same size as the size of the casing for two parallel-connected standard cells. In addition, a printed circuit board is also provided inside the casing, and four circuits are provided on the printed circuit board for different functions, including: a step-down circuit for stepping down the discharge voltage of the Li-ion cells, a charging circuit for charging the Li-ion cells in accordance with an adaptor inserted inside a charging slot, a protecting circuit for protecting the charge and discharge operations of the Li-ion cells, and a low-battery detecting circuit for detecting residual power of the Li-ion cells. Therefore, the invention can benefit from the advantages of being a standard battery and a Li-ion secondary battery.